EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Pereira on December 2, 2009.

In the claims:

Claims 15, 17-19, 21 and 23-25 are cancelled.

14. (Currently amended) A method of constructing a *Schizosaccharomyces pombe* yeast cell which produces a heterologous protein, comprising

deleting or inactivating at least one *S. pombe* gene encoding enzyme selected from the group consisting of ~~dipeptidyl aminopeptidase (SPAC 14C4.15c), cytoplasmic aminopeptidase (SPAC 13A 11.05),~~ pyruvate decarboxylase pdc 1 designated ~~(~~SPAC 1 F8.07c~~),~~ and serine protease isp 6 designated ~~(~~SPAC4A8.04~~), aminopeptidase (SPAC4F10.02), carboxypeptidase (SPBC16G5.09), carboxypeptidase (SPBC337.07c), vacuolar carboxylase S (SPAC24C9.08), zinc protease (SPACUNK4.12c), zinc protease SPCC 1442.07c), metalloprotease (SPCC965.04c), zinc metalloprotease (SPAC17A5.04c), CAAX prenyl protease I (SPAC3H 1.05), dipeptidyl peptidase (SPBC 1711.12), dipeptidase (SPCC965.12), methionine metallopeptidase (SPBC 14C8.03),

~~methionine aminopeptidase (SPBC3E7.10), signal peptidase (SPAC1071.04c), and mitochondrial peptidase/3 subunit (SPBP23A10.15c)~~; and

transforming the *Schizosaccharomyces pombe* yeast cell with a polynucleotide which encodes the heterologous protein,

wherein the deletion or inactivation of the at least one gene results in increased production of the heterologous protein compared to a *Schizosaccharomyces pombe* yeast cell in which the at least one gene has not been deleted or inactivated.

20. (Currently amended) A method of producing a heterologous protein, comprising constructing a *Schizosaccharomyces pombe* yeast cell in which at least one *S. pombe* gene is deleted or inactivated, wherein the at least one *S. pombe* gene encodes an enzyme selected from the group consisting of ~~dipeptidyl aminopeptidase (SPAC14C4.15c), cytoplasmic aminopeptidase (SPAC 13A 11.05),~~ pyruvate decarboxylase pdc 1 designated ~~(~~SPAC 1 F8.07~~),~~ serine protease isp 6 designated ~~(~~SPAC4A8.04~~), aminopeptidase (SPAC4F10.02), carboxypeptidase (SPBC16G5.09), carboxypeptidase (SPBC337.07c), vacuolar carboxylase S (SPAC24C9.08), zinc protease (SPACUNK4.12c), zinc protease (SPCC 1442.07c), metalloprotease (SPCC965.04c), zinc metalloprotease (SPAC 17A5.04c), CAAX prenyl protease I (SPAC3H 1.05), dipeptidyl peptidase (SPBC 1711.12), dipeptidase (SPCC965.12), methionine metallopeptidase (SPBC 14C8.03), methionine aminopeptidase (SPBC3E7.10), signal

~~peptidase (SPAC 1071.04c), and mitochondrial peptidase 13 subunit (SPBP23A 10.15c)~~; and

transforming the *Schizosaccharomyces pombe* yeast cell with a polynucleotide which encodes the heterologous protein,

wherein the deletion or inactivation of the at least one gene results in increased production of the heterologous protein compared to a *Schizosaccharomyces pombe* yeast cell in which the at least one gene has not been deleted or inactivated;

culturing the yeast cell constructed such that the heterologous protein is produced by the yeast cell; and collecting the heterologous protein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE K. JOIKE whose telephone number is (571)272-5915. The examiner can normally be reached on M-F, 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on (571)272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michele K. Joike/
Examiner, Art Unit 1636

Michele K. Joike
Examiner
Art Unit 1636